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Grammar
of
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A
GRAMMAR OF GEOGRAPHY.

Part I.

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GRAMMAR OF GEOGRAPHY.

PART I.

CHAPTER I.—SECTION FIRST.

(Definitions.)

1. **GEOGRAPHY** is the description of the earth; or it is the science which describes the surface of the globe; the various divisions of that surface, both natural and artificial; the inhabitants of the earth, and the variety of its productions; together with the various lines, real and imaginary, which are drawn or supposed to be drawn upon it.

2. The surface of the earth is divided into land and water.

The Natural Divisions of Land.

3. *Continent* is the name applied to the two principal divisions of the land; one of which is called the old or Eastern Continent; and the other the New or Western Continent.

4. An *Island* is a portion of land entirely surrounded by water, as Great Britain, Ireland; Sumatra, Java, Borneo, Jamaica, Ceylon, &c.

5. A number of islands situated at short distances from each other constitutes a *group of Islands*; as the Phillippines, the Canaries, the Orkneys.

6. An *Archipelago* is composed of a great number of islands, or of numerous groups of islands, near each other; as the Archipelago of Mergui; the Eastern Archipelago; the Grecian Archipelago. The term Archipelago is also applied to a sea, or part of a sea, in which there are several groups of islands.

7. An *Isle* is a small island; the term is generally applied to islands that are situated in lakes; it is also frequently used in the plural number instead of islands.

8. A *Peninsula* is a tract of land, nearly surrounded by water; as the Peninsula of Malaya, the Morea.

9. An *Isthmus* is a narrow neck of land which joins a peninsula to a continent, or two large portions of a continent to each other; as the Isthmus of Suez, which joins Asia and Africa; the Isthmus of Kraw, which connects the Peninsula of Malaya with the mainland of Asia.

10. A *Plain* is a small space of land without any considerable eminence.

11. *Champaign* is a term applied to a large level tract of land.

12. A *Mountain* is an eminence on the surface of the earth considerably elevated above the surrounding plains.

13. A number of mountains, joining each other, and running through an extent of country, forms a *Chain of mountains*.

14. A single mountain, or one of a chain, is sometimes called a *Mount*.

15. A *Volcano* is a burning mountain, which throws out fire, stones, and liquid matter, called *Lava*.

16. A *Hill* is a small mountain.

17. A number of Hills, contiguous to each other, forms a *Range of Hills*, sometimes called *Downs*.

18. A *Pass* or *Defile* is a narrow passage over a mountain or hill, or between two mountains.

19. *Ghaut* is applied in India to a pass or defile, to a landing place on the banks of a river or tank; and in the plural, *Ghauts*, means a chain of mountains.

20. A *Valley*, *Vale*, or *Dale*, is the name given to low land between mountains or hills.

21. *Rocks* are huge masses of stone scattered over a mountain or forming a mountain.

22. When a side, or the face of a mountain is perpendicular, or nearly so, it is called a *Precipice*.

23. When a range of high land stretches out into the Sea the termination of it is called *Cape*, *Head-land*, *Promontory*; the latter designation is sometimes applied to the range itself.

24. A *Forest* is an extensive tract of land, covered with trees and shrubs.

25. A *Wood* is a small forest.

26. A *Jungle* is the Indian name for a Forest or Wood: it is also given to a tract of country covered with high coarse grass; frequently the word is used to signify the trees, shrubs and grass growing in desert places.

27. A *Desert* is a space of barren land; also a large tract of fertile land which is uninhabited.

28. A *Marsh*, *Morass*, *Bog*, or *Fen*, is a tract of low swampy ground. The Sooder bunds are extensive marshes covered with wood or jungle.

29. A *Meadow* is a tract of land (generally inclosed) producing grass fit for pasturage, or for making hay.

30. A *Common* is an open piece of land generally covered with coarse herbage.

31. A *Coast* or *Shore* is that part of a country which borders on the sea. Shore is also applied to that part of a sea adjoining the land.

SECTION SECOND.

The Artificial and Political Divisions of Land.

1. *Country* is an indefinite term which may be applied to any extent of land.

2. *Territory* signifies the country or portions of land belonging to any prince or people.

3. *Monarchy* is the government of a single

person; sometimes it is applied to the country governed by a sovereign; sometimes to the mode in which any particular country is ruled.

4. An *Empire* is the extent of territory under the dominion of an emperor.

5. A *Kingdom* is the dominion of a King.

6. A *Republic* is an extent of country governed by the people of it.

7. An *Electorate* is the dominion of an elector.

8. A *Principality* is a country whose sovereign has the title of Prince.

9. A *Dukedom* or *Duchy* signifies the territory of a Duke.

10. A *Province* is a division of a country comprising several cities and towns.

11. A *County* or *Shire* is the term applied to the divisions of Great Britain and Ireland.

12. A *Zillah* is an Indian division of a province.

13. A *Zemindarree* is a tract of country, the property of an individual called a Zemindar.

14. A *Presidency* is one of the grand divisions of British India: there are three Presidencies, which are divided into Provinces, and these provinces are again divided and subdivided into Zillahs, Zemindarrees, &c.

15. A *Vice-Royalty* is part of the dominions of a prince governed by a nobleman, acting as his representative, who is called a Viceroy.

16. The term *Quarter* is applied either to a division of the earth in general, that of a prince, or of a part of a city.

17. *Canton* signifies a quarter or less division of a province or city.

18. A *City* consists of a large collection of houses, the inhabitants of which commonly compose a large community, enjoying particular privileges.

19. A *Town* is a place next in degree below a city.

20. A *Borough* is a town which enjoys the privilege of sending representatives to Parliament.

21. A *Village* is a small collection of houses chiefly inhabited by farmers and peasants.

22. A *Hamlet* is a small village.

23. *Fortress* is a general name for all fortified places, whether they be towns, or merely citadels, castles, or forts.

24. A *Diocese* is that portion of a country, the ecclesiastical government of which is confided to a Bishop. The principal city or town in the diocese is called the *See*.

SECTION THIRD.

Natural and Artificial Divisions of Water.

1. The body of water which covers the greater part of the surface of the Globe is called the *Ocean*.

2. A *Sea* is a large portion of water forming part of the ocean.

3. A *Gulf* is a branch of the sea extending more or less into the land.

4. A *Bay* is an indentation of the sea upon the

land; it is frequently used as synonymous with the term Gulf.

5. A *Harbour, Haven or Cove*, is a small gulf or bay nearly encompassed by land, and affording a rendezvous for shipping.

6. A *Road* is a sheltered part of the sea where ships may anchor in safety.

7. A *Strait* is a narrow passage of water forming a passage from one sea to another.

8. A *Channel* is a long passage; wider than a strait, connecting one sea with another.

9. A *Lake* is a large body of water, either salt or fresh, entirely surrounded by land. In this country a lake is called a *Iheel*.

10. A *River* is a long narrow channel of fresh water, rising among mountains, or issuing from a lake, and flowing into a sea; some rivers terminate in lakes. The part of a river where it rises is called its *source*; the hollow in which a river flows is called its *channel or bed*. The *mouth* of the river is its junction with the sea; the land immediately on each side of a river is called its *banks*; and they are denominated right and left banks according as they are on the right or left hand of a person going from the mouth of a river to its source. The direction in which a river runs is called its *course*. Streams of water flowing into a large river are called its *tributary streams*. When a river is divided into two or more channels, those channels are called its *branches*.

11. When the mouths of a river are numer-

ous, the country through which its branches flow, is called a *Delta*, and takes its name from the river: thus we say the *Delta* of the *Nile*, the *Delta* of the *Ganges*.

12. A *Rivulet* or *Brook* is a small river. In India small rivers or rivulets are called *Nullahs*.

13. A *Creek* is a small inlet of the sea, or of a river; here creeks are sometimes called *Khals*.

14. The expanse of water formed by the junction of several rivers on their approach to the sea, is called an *Estuary* or *Frith*.

15. A *Sound* is that part of a strait which is so shallow as to be sounded.

16. A *Canal* is an artificial channel of water, the chief object of which is to form a communication between different places by water, for the conveyance of goods.

17. A *Tank* is an artificial reservoir of water.

SECTION FOURTH.

Of Maps, and the Latitudes and Longitudes of Places.

Observation.—As we shall frequently have occasion to make use of the terms Equator, Zones, Meridian, Parallels of Latitude, and to speak of the Latitudes and Longitudes of places, we deem it necessary to give definitions of those terms in this place, though strictly speaking the consideration of them belongs to *Mathe-*

matical Geography, of which we shall treat hereafter.

1. *Maps* are representations of the earth's surface delineated on a plane; they are either general or particular: general maps are representations of the whole surface of the globe, or of the two hemispheres; particular maps are representations of particular portions of the earth, or of particular countries.

The top of a map is the north, the bottom south, the right hand the east, and the left hand the west, unless the country is indicated by a *fleur-de-lis*, which points to the north.

2. The lines drawn across a map from east to west, are parallels of latitude, and are used to measure the distance of any place from the *Equator*, which is an imaginary line encompassing the globe, and dividing it into two equal parts, called the *Northern* and *Southern Hemispheres*. All places northward of the equator have *North Latitude*, and those on the south side of the equator have *South Latitude*. *Latitude* and *Longitude* are measured by degrees and minutes, 60 of the latter making one of the former.

3. Those lines which, running north and south, intersect the parallels of latitude, are called *Meridians*, and are used for measuring the longitude or distance of any particular place, from some meridian fixed upon, which is called the *first meridian*. On British maps, the first meridian is the *Meridian of Greenwich*.

4. The surface of the earth is divided into

five Zones called the *North Frigid Zone*, the *North Temperate Zone*, the *Torrid Zone*, the *South temperate Zone*, and the *South Frigid Zone*.

5 The *North Frigid Zone* is the space surrounding the north pole, and encompassed by an imaginary circle called the *Arctic circle*; situated $23\frac{1}{2}^{\circ}$ distant from the *North pole*, which is the name given to one extremity of the earth's axis, (the imaginary line on which it turns:) the other extremity is called the *South pole*.

6. The *North Temperate Zone* extends from the Arctic circle to the *Tropic of Cancer*; its breadth is 40° .

7. The *Torrid Zone*, the breadth of which is 47° , extends between the Tropics of Cancer and Capricorn, two imaginary circles, situated $23\frac{1}{2}^{\circ}$ on each side of the Equator.

8. The *South Temperate Zone* (43° in breadth) is between the *Tropic of Capricorn* and the *Ant-arctic Circle*, which is the boundary of the *South Frigid Zone*, extending $23\frac{1}{2}^{\circ}$ round the *South Pole*.

9. On Maps, the sea-Coasts are represented by thick shaded lines; Rivers by black serpentine lines; Forests by small trees; Mountains by shadows; Lakes by shaded coasts; Marshes by shaded beds; Sands and Shallows by dotted beds; the courses of rivers, and direction of winds by small arrows; Roads by double lines; and Rocks by small crosses. The boundaries

of *Countries* are shown by large dotted lines, and the boundaries of *Provinces* by small dotted lines; *Cities* and *Towns* by a large O, and *Villages* by a small round °. The names of *Provinces* are written in large capitals; names of *Cities* and *Towns* in Roman characters, and *Villages* in Italics.

CHAPTER II.

OF THE EARTH AND ITS PRINCIPAL DIVISIONS.

Form and Size.—The earth is of a round or spherical figure, nearly resembling a ball or globe; and from the most correct measurement its diameter is 7,914 English miles; its circumference is 360 degrees, or 24,862 miles, the length of a degree being 69 1-10 miles; its superficial extent is nearly two hundred millions of square miles.

Divisions.—The Terrestrial portion of the earth's surface consists of six grand divisions; four of which, *Europe*, *Asia*, *Africa*, and *America*, constitute the continental parts, and are generally called the four quarters of the earth. The fifth division is *Australasia*, or *Oceania*, including New Holland and the adjacent islands. The sixth division termed *Polynesia*, contains the various groups of islands in the south sea, or Southern Pacific Ocean.

The portions of the globe, named Europe, Asia, and Africa, form the Old or Eastern Continent; and America constitutes the New-Western or Columbian Continent.

The water upon the surface of the globe consists of five grand divisions, namely the *Atlantic*, the *Pacific*, the *Indian*, the *Northern*, and the *Southern Oceans*. The *Atlantic Ocean* extending from the Arctic circle to about 30° of south latitude, is about 4,000 miles in its greatest width; it lies between Europe and Africa in the East, and America in the West; it derives its name from Mount Atlas in Africa, and is generally considered as divided into two parts, called northern and southern, by the equator.

The *Pacific Ocean*, divided in the same manner as the Atlantic, extends between America and Asia, from the Arctic circle to about 30° south of the equator; its greatest breadth is about 10,000 miles. The celebrated navigator Magellan named this Ocean 'Pacific' on account of the fine weather he experienced when he sailed through it, in his voyage round the world A. D. 1568.

The *Indian Ocean* lies between the eastern shores of Africa and the East India Islands, and New-Holland; it extends from the southern coasts of Asia to about 30° on the south side of the equator; and its greatest width is about 3,000 miles.

The *Northern or Arctic Ocean* is enclosed by

the Arctic circle, and extends round the North Pole.

The *Southern Ocean* occupies that portion of the earth's surface between the 30th degree of south latitude and the south Pole. That portion of the Southern Ocean within the Ant-arctic circle is sometimes called the Ant-arctic Ocean.

To various parts of these Oceans, particular names are assigned, as the Baltic Sea, the Bay of Bengal, the Gulf of Mexico, &c. which will be noticed when describing the parts of the world to which they belong.

CHAPTER III.

ASIA.

1. *Situation, Extent, and Boundaries.*—Asia which is situated between 20° and 77° of north latitude, and 26° and 190° of east longitude, is 7,583 miles in length, measured from the Dardanelles to Bhering's straits; and 5,250 miles in breadth from the southern Cape of the Peninsula of Malacca, to the most northern parts of Siberia. Its superficial area is 12,118,000 geographical square miles, containing a population of 390,000,000 souls.

On the north it is bounded by the Arctic Ocean; on the east by the Pacific Ocean; on the

south by the Indian Ocean; and on the west by the Red Sea, or Arabian Gulf; the Isthmus of Suez, the Levant, the Archipelago, the Straits of the Dardanelles, the Sea of Marmora, the Straits of Constantinople, the Black Sea, the Sea of Azof; the rivers Don and Volga, and the Uralian Mountains. Those parts of the Ocean forming the eastern and southern boundaries, bordering upon the land, have particular names assigned to them, which we shall notice in describing the Asiatic Seas, Gulfs, &c.

2. *Divisions*.— The principal divisions of Asia, are *Russia* in *Asia*, or *Siberia*, in the north; *Tartary*, *Thibet*, and *Corea*, forming the central parts; *Asiatic Turkey*, *Arabia*, *Persia*, *Hindoosthan*, *Burmah*, *Cochin-China*, *China*, and *Siam*, in the south.

CHAPTER IV.

EUROPE.

Situation, Extent, Boundaries.—This division of the eastern continent is the smallest of the four quarters of the world.

It occupies the north western part of the eastern continent, and extends from the 36th degree to the 71st degree of north latitude; and from the 10th degree of west to the 62d degree of east longitude; its greatest extent in the direction of the meridians is about 24,000 English miles, and from east to west nearly

2,200; but from the south-western point of Portugal to the north-western boundary of European Russia the distance exceeds 3,400 English miles. The superficial extent of Europe is about 225,000 geog. leagues, or 2,793,000 geo. sqr. miles containing 227,700,000 inhabitants.

The boundaries of Europe are the Mediterranean Sea on the south; the Atlantic Ocean on the west; the northern Ocean on the north. The eastern limits are not so well defined; the Uralian mountains form the boundary to about the 56° of North Latitude, from which point an arbitrary line is drawn to the Volga, which washes its confines till its approach to the Don; the separation is then continued nearly in the same direction as the latter river, which completes the boundary to the Sea of *Azof*; it then passes through the Black Sea, the Hellespont or Straits of Constantinople, the Sea of Marmora, the Dardanelles, and the Archipelago, to the Mediterranean.

CHAPTER V:

AFRICA.

Situation, Boundaries, Extent, and Population.—Africa is the third part of that division of the globe, which is called the old world. It is comprised between the 37th degree of north latitude and $34^{\circ} 7'$ of south latitude,

and between $17^{\circ} 20'$ west longitude and $51^{\circ} 20'$ east longitude; being situated to the south of Europe, and to the west of Asia: from the former it is separated by the Mediterranean Sea, and from the latter it is partially separated by the Red Sea. Africa is joined to Asia by the Isthmus of Suez. The Indian Ocean bounds the other part of the eastern coast not washed by the Red Sea; the southern ocean limits it on the south, and the Atlantic on the west. Its greatest length is 4,300 geographical miles, and its extreme breadth exceeds 4,100, containing an area of 8,516,000 geographical square miles, and a population of 80,000,000 souls.

Divisions.—The principal divisions of Africa are,

1. Northern Africa, comprehending Egypt and the states of Barbary.

2. Western Africa, containing the countries between Sahara and Benguela.

3. Southern Africa, extending from the Cape of Good Hope to the frontiers of Benguela and Mozambique.

4. Eastern *Africa* comprising Mozambique, Nubia, and the intermediate countries.

5. Central Africa, consisting of extensive regions, but partially explored and generally known as Lower Ethiopia.

6. The islands of Africa.

CHAPTER VI.

AMERICA.

Name, Situation, Boundaries, Extent, and Population.—The great continent of America, which, from its recent discovery, and vast size, is called the New World, is situated between the Atlantic and Pacific Oceans, being bounded by the former on the east, and by the latter on the west; its northern boundaries are unknown, but so far as has yet been discovered, it extends from 80° north latitude to 56° south latitude, and from 35° to 160° west longitude. Its length from north to south is about 10,000 miles; its average breadth is between 1,400 and 1,500 miles; but in its broadest part it measures 3,690 miles. The superficial area is 10,608,903 geographical square miles, containing a population of 28,000,000 souls.

Discovery.—The vast continent of America was unknown to the inhabitants of Europe, Asia, and Africa, at least to the civilized portion of them, till the year 1,492, when it was discovered by Christoval Colon, commonly known by the name of Columbus, a native of Genoa, then in the employment of the Spanish Government. It derives its name from Amerigo Vespucci, a Florentine gentleman, who visited it soon after its discovery.

Divisions.—America is divided into two grand portions, *North America* and *South America*. The first division reaches from 90°

30' N. Latitude to nearly 80°, and from 50° to 170° W. Longitude. South America extends from the southern part of North America to 56° of S. Latitude, and from 35° to 82° W. Longitude. Each of these divisions contains a number of states mentioned in a subjoined table; besides which, there are in the northern parts of the continent the countries of Labrador, Greenland, and the Russian territories, all of which are but little known.

CHAPTER VII.

AUSTRALASIA OR OCEANICA.

Names of the islands and their situations.—

Australasia includes Australia, Van Diemen's Land, New-Guinea, New-Britain, New-Ireland, New-Caledonia, New-Hebrides, and New-Zealand, with all the other islands lying between 3° N. and 50° S. Latitude; and from 85° to 195° E. Longitude.

Australia.—Australia is about three fourths of the magnitude of Europe, being about 2,600 miles in length, and 2,000 in breadth; it is divided into two parts, New-Holland and New South Wales. New-Holland, as far as it has yet been explored, consists of highland, near the coast, and in the interior, of a flat marshy Country. The other part, New-South Wales, is divided into the four districts of Sidney, Paramatta, Hawkesbury, and Newcastle. Sid-

ney, the capital of New-South wales, stands about seven miles from port Jackson, and is becoming a very flourishing town. The Harbour of port Jackson is very safe, and so extensive, that it is said it could contain all the shipping in the world. Paramatta, Windsor, Newcastle, Richmond, and Liverpool, are the other towns. The Hawkesbury is a fine river, navigable for vessels of 400 tons burthen, at the distance 140 miles from the sea.

Van-Dieman's Land--Van-Diemen's Land is situated on the south of Australia, from which it is separated by Bass' Straits, which are about 90 miles broad; the capital is Hobart Town, situated on the river Dorevent, about nine miles from the sea.

CHAPTER VIII.

POLYNESIA.

Names of the Islands.—The numerous groups of Islands in the Pacific Ocean eastward of the Eastern Archipelago and Australasia, are called Polynesia; They are classed according to their situations as follows:

North of the Equator.

- | | |
|------------------|---------------------|
| 1. Pelaw Islands | 3. Ladrões |
| 2. Carolines | 4. Sandwich Islands |
| | 5. Minor Islands |

South of the Equator.

- | | |
|-------------------------------|------------------------|
| 6. Friendly or Feejee Islands | 7. Navigator's Islands |
| | 8. Georgian Islands |

- | | |
|------------------------|-------------------|
| 9. Society Islands | 10. Marquesas |
| 11. Washington Islands | 12. Minor Islands |

CHAPTER IX.

Mathematical Geography.

Definition.—This branch of Geography treats of the earth; and a part of the solar system, its figure, magnitude, and motion, and explains the construction and use of globes and maps.

SECTION FIRST.

On the Universe.

The Universe and fixed stars.—The universe as far as mankind have been able to observe, appears to consist of an immense number of luminous bodies extending through an infinite space, some of which are fixed, and others move in different directions. Those which are stationary are generally supposed to be of the same nature as the sun that lights our world, and like it to be the centre of systems, that is, to have moving, or revolving around them bodies similar to this earth, and the planets of our system. The bodies which are placed without our system appear to us as fixed luminous points, some of which are so small as scarcely to be seen by the eye without the as-

sistance of large telescopes, and there are some that are scarcely perceivable even by these means. These bodies are called the fixed stars; the ancient astronomers divided them into groups, and fancied them to describe the outlines of men, animals, &c. This classification is of very great use, as by it we are enabled to observe and notice the stars more particularly, and also by them to trace the motions of other heavenly bodies.

The Sun and Primary Planets.—The sun is a large luminous body, which appears to be fixed near the centre of the system in which our earth is placed. The primary planets are those which revolve round the sun: they are Mercury, Venus, the Earth, Mars, Jupiter, Saturn, and Herschel; they are known from the fixed stars by their motion and steady light. Venus, Mars, and Jupiter, are apparently larger than the stars; they have, however, no light but what they derive, as the earth does, from the sun. The dimensions, distances from the sun, and periods of completing their orbits are as follows.

Planets.	Distances.	Diameter	periods of Revo.
Mercury	37,000,000	3,130 miles	88 days
Venus	69,000,000	7,700	224
Earth,	95,000,000	7,914	365
Mars,	144,000,000	4,200	687
Jupiter,	494,000,000	91,000	4,332
Saturn,	906,000,000	77,000	10,759
Hers.	1,824,000,000	34,170	30,688

Besides the planets above noticed, four smaller ones have been discovered: these are the Asteroids, Pallas, Ceres, Juno, and Vesta.

The Sun is about 886,246 miles in diameter, and turns on its axis in 25 days 10 hours.

Secondary planets.—Some of the planets are surrounded by smaller globes, which reflect the sun's light during the night. The moon belonging to the earth is about 2,000 miles in diameter; it is about 240,000 miles distant from its primary planet round which it revolves in $29\frac{1}{2}$ days.

Jupiter has four moons, Saturn has seven, and Herschel has six.

SECTION SECOND.

Description of the Terrestrial Globe, &c.

Definitions.

1. The Terrestrial Globe is a representation of the earth, having the seas and different countries drawn upon it, exactly as they lie on the surface of the earth.

2. The wire passing through the centre of the Globe, and on which it turns, is called the axis; the extreme points of the axis are called the poles; one of which is the north or arctic, and the other is the south or ant-arctic, pole. The axis of the earth is an imaginary line passing through the centre, round or rather upon which it turns from west to east once in 24 hours; thereby causing the sun and other heav-

enly bodies to appear to revolve round the earth from east to west in the same period of time.

3. The equator is a circle supposed to be drawn on the surface of the earth equi-distant from the poles, dividing the globe into two equal parts called the northern and southern hemispheres. The equator is drawn upon the globe and divided into 360 degrees, which are also divided into half degrees, and hours, of 15 degrees each.

4. Meridians are great circles perpendicular to the equator, and passing through the poles. They may be considered as indefinite in number, but on the globe are generally drawn through every 15th degree of the equator.

5. The brazen meridian is the brass circle in which the globe hangs; it may be made to represent the meridian of any particular place, and is divided into quadrants of 90 degrees each; on one semi-circle the degrees are numbered from the equator towards the poles; on the other the degrees are numbered from the poles towards the equator. The former is used in finding the latitudes of places; the latter in elevating the poles.

6. The ecliptic is a great circle in the heavens, in which the sun, or rather the earth; performs its annual revolution.

The ecliptic is proper only to the celestial globe, but on account of its use in many geographical problems, it is drawn on the terrestrial globe. It crosses the equator obliquely,

and extends $23^{\circ} 28'$ to the north of it on one side and $23^{\circ} 28'$ to the south of it on the other side. The angle which it makes with the equator is called the obliquity of the ecliptic. The ecliptic is divided into 12 equal parts, called signs, each containing 30 degrees: they are named as follows:

Aries,	The Ram.	Libra,	The Balance.
Taurus,	The Bull.	Scorpio,	The Scorpion.
Gemini,	The Twins.	Sagittarius,	The Archer.
Cancer,	The Crab.	Capricornus,	The Goat.
Leo,	The Lion.	Aquarius,	The Waterbearer.
Virgo,	The Virgin.	Pisces,	The Fishes.

These signs refer to the constellations or groups of stars among which the sun appears to move.

7. The tropics are two circles parallel to the equator, and distant from it $23^{\circ} 28'$. The one lying to the north of the equator is called the Tropic of Cancer, and the other southward of the equator is named the Tropic of Capricorn.

8. The polar circles are two circles parallel to the equator, $23^{\circ} 28'$ distant from each pole; that which encompasses the north pole is called the arctic circle, and the one which encompasses the south pole is called the antarctic circle.

9. The equinoctial points are the points of intersection of the ecliptic and the equator; they are the first points of Aries and Libra.

10 The solstitial points are the first points

of Cancer and Capricorn; they are the two points of the ecliptic farthest from the equator, and where the tropics come in contact with it.

11. The equinoctial colures are the meridians passing through the equinoctial points.

12. The solstitial colures are the meridians passing through the solstitial points.

13. The latitude of a place is its distance north or south of the equator, and is reckoned in degrees and minutes. It is measured on an arc of the meridian and cannot exceed 90 degrees, that being the distance of the poles from the equator.

14. The longitude of a place is its distance eastward or westward from any particular meridian, called the first meridian. Longitude is measured on the equator, and cannot exceed 180 degrees, or half the circumference of the globe. The first meridian on British globes and maps is the meridian of Greenwich.

15. Parallels of latitude are circles parallel to the equator, generally drawn through every 10th degree of latitude.

16. The difference of latitude between two places is the shortest distance between the parallels of those places.

17. The difference of longitude between two places is the distance between the meridians of those places reckoned upon the equator.

18. The distance between two places is the shortest line that can be drawn between them, and is measured by the quadrant of altitude.

19. The quadrant of altitude is a thin slip of brass, divided into 90° ; it is moveable on a pivot, and has a screw, by which it can be fixed on the brazen meridian.

20. The horary or hour circles are small circles on the globe, placed at the poles, having the hours of the day marked on them, with an index to each. Sometimes they are small brass circles, divided into hours, without an index, the want of which is supplied by the brass meridian.

21. The horizon is either sensible or rational; the sensible horizon is the circle, which is the boundary of our sight; separating the visible from the invisible hemisphere. The rational horizon is a great circle, dividing the upper from the lower hemisphere.

22. The zenith is the point in the heavens directly over our heads, and is equally distant from all points of the horizon.

23. The nadir is that point of the heavens directly opposite the zenith;—the zenith and nadir are the poles of the horizon, being each 90° from it.

24. The wooden horizon or the horizon of the globe is a circular flat piece of wood sustaining the globe, and representing the rational horizon. It is divided into five circles; the innermost is used in finding the azimuth of the celestial bodies; the next is used in finding the amplitude of the celestial bodies; beyond which is a circle marked with the points of the mar-

iner's compass, of which the north, south, east, and west points are called the cardinal points; these are again divided into eight points, called rhumbs; the next circle exhibits the signs of the zodiac, with their names, characters, and the number of degrees belonging to each; the outermost circle is a calendar shewing the days of the month, corresponding with the degrees of the different signs of the zodiac.

25. The angle of position between two places is formed between the meridian of one of the places and the great circle passing through the other place.

26 The analemma is a calendar of the months extending from tropic to tropic; the months and days are divided so as to correspond to the sun's declination for every day in the year.

27. The sun's declination is its distance north or south of the equator.

28. The sun's altitude is its distance or height above the horizon.

29. Antoeci are those who live under the same meridian, but on different sides of the equator, and at equal distances from it.

30. Perioeci are those who live under opposite meridians, but on the same side of, and equi-distant from the equator.

31. Antipodes are those who live under opposite meridians, and in opposite parallels of latitude; that is, diametrically opposite to each other.

32. The surface of the earth is divided into five parts, called zones.

33. The torrid zone is that space of the earth included between the tropics by which it is bounded; its breadth is $46^{\circ} 56'$.

34. The two temperate zones are included between the tropics and the polar circles; the one bounded by the tropic of cancer and the arctic circle is called the north temperate zone; and the other bounded by the tropic of capricorn and the ant-arctic circle is called the south temperate zone; the breadth of each of the temperate zones is $43^{\circ} 4'$.

35. The frigid zones are the spaces included within the polar circles: that bounded by the arctic circle is the north frigid zone, and that bounded by the ant-arctic circle is the south frigid zone.

36. The inhabitants of the zones derive various names from the different directions of their shadows. Those who live in the torrid zone are called *amphiscii*, having both kinds of meridian shadow; twice in the year they have no shadow at noon; and are then called *ascii*. The inhabitants of the temperate zones are called *heteroscii*, having only one kind of meridian shadow; those who live in the south temperate zone have their shadows at noon cast towards the south, and those who live in the north temperate zone have their shadows at noon always towards the north. When the days in the frigid zones are more than 24 hours

long, the inhabitants have their shadows cast all round them, and are therefore called periscii.

37. When the sun is in the zenith, or directly over our head, it is said to be vertical.

38. Climate is a part of the surface of the earth bounded by two circles parallel to the equator and of such a breadth that the longest day in the parallel nearest the pole exceeds the longest day in the parallel next the equator by a certain space of time. There are thirty climates between the equator and each pole; in the first 24, the days increase by half hours, and are called hour climates—in the remaining six; between the polar circles and the poles as the days increase by months, the divisions are called month climates. The breadth of climate varies, and the greater the distance from the equator the less is the breadth of the climate.

39. A right sphere is that which has the poles in the horizon and the equator and all the parallels of latitude perpendicular to it; when either of the poles is elevated above the horizon less than 90° the equator and parallels of latitude form with the horizon oblique angles, and the sphere is therefore called oblique;—the sphere is said to be parallel when the equator coincides with, or is parallel to, the horizon; the poles being consequently in the zenith and nadir.

40. Twilight is the medium between light and darkness, which occurs in the morning before sunrise, and in the evening after sunset. The boundary of twilight is 18° below the horizon and parallel to it; the imaginary circle describing this boundary is called the crepusculum.

Physical Geography.

Definitions. Physical geography describes the different seasons, climates, productions, the various phenomena of winds, earthquakes and tides, relative to the earth and the variety of its inhabitants with the particular circumstances in which they are placed by difference of climate, government, &c.

THE END.

QUESTIONS

ON

GEOGRAPHY.

SECTION I.

On the Definitions.

What is Geography ?

What are the constituent parts of the surface of the earth ?

How many continents are there, and what are the divisions of the earth contained in them ?

How many oceans are there, and what are their names and divisions ?

What is a sea ?

What is a cave ?

What is a bay ?

What is an island ?

What is a river ?

What is a peninsula ?

What is an isthmus ?

What is an estuary ?

What is a promontory ?

What is a cape ?

What is a channel ?

What is a lake ?

What is a strait ?

What is a road ?

What is a gulf ?

What is a continent ?

What are the divisions of land and water ?

What is an assemblage of islands called ?

What country is that to which the name of

Delta is applied, and why is it called so ?

What is a volcano ?

What is a ghaut ?

What is a marsh ?

What is a jungle ?

What is a canal ?

What is a sound ?

SECTION II.

On Maps.

What are maps ?

What lines are drawn upon maps ?

How is the surface of the earth divided ?

What are the names of the zones, and their extent?

SECTION III.

On the Earth and its Divisions.

Give a description of the shape of the earth.

What are the great divisions of land?

What portions of the earth's surface are contained in each continent?

Into how many parts is the ocean divided, and what are they?

Describe the situation and extent of the ——— ocean.

SECTION IV.

General Questions on the Principal Divisions of the earth.

How is ——— bounded?

How is ——— divided?

What is the length and breadth of ———?

What is the area and population of ———?

SECTION V.

On Australasia.

What islands are comprehended under the name of Australasia?

Describe Australia.

Describe New-South-Wales

What is the capital of New-South-Wales ?

What are the other towns in this country ?

Describe Van-Dieman's Land.

Name the other Islands.

SECTION VI.

On Polynesia.

Name the islands denominated Polynesia.

Where are the Pelew-Islands situated ?

What is the situation of the Carolines ?

What other islands are there north of the equator ?

Where are the Navigator's Islands ?

SECTION VII.

On Mathematical Geography.

What is Mathematical Geography ?

Of what is the universe supposed to consist ?

How are the fixed stars classed, and for what purpose ?

What is the Sun, and where is it placed ?

What is its diameter, and in what time does it turn on its axis ?

What are the names of the planets, their respective distances from the sun, their diameters and periods of revolution ?

- Have any of the planets moons ?
 What is the Terrestrial Globe ?
 What is the axis of the globe ?
 What are the extreme points of the axis called ?
 What is the axis of the earth ?
 What is the equator ?
 How is the equator divided ?
 What are meridians ?
 What is the brazen meridian ?
 Describe the ecliptic ?
 How is the ecliptic divided ?
 To what do these signs refer ?
 What are the tropics :
 What are the polar circles ?
 What are the equinoctial points ?
 What are the solstitial points ?
 What are the equinoctial and solstitial colures ?
 What is the latitude of a place ?
 What is the longitude of a place ?
 What are parallels of latitude ?
 What is meant by difference of latitude and longitude ?
 How is the distance between two places measured ?
 Describe the quadrant of altitude ?
 Describe the horary or hour circles ?

How many horizons are there, and how are they distinguished ?

What is the zenith ?

What is the nadir ?

What is the horizon of the globe ?

What are rhumbs ?

What are the cardinal points ?

Describe the angle of position between two places.

Describe the analemma.

What is meant by the sun's declination ?

What is meant by the sun's altitude ?

What are the antoeci of any place ?

What are the perioeci ?

What are the antipodes ?

Into how many zones is the earth divided ?

Where is the torrid zone situated ?

Where are the temperate zones situated ?

By what names are the inhabitants of the different zones designated ?

When is the sun said to be vertical ?

What is meant by the term climate, and how many climates are there ?

What are hour climates, and what are north climates ?

What is a right, what an oblique, and what a parallel sphere ?

What is twilight, and what is the boundary of twilight called ?

SECTION VIII.

Physical Geography.

What is Physical Geography ?



THE END.



